

PO No	Supplier	Line Item No	Ref No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO038398	ACI001-VC	3	1	Net 30	M17-4-R0.750	17-4 Round Bar .750 : 17-4 PH / S17400 / TYPE 316 SS ROUND BAR PER AMS 5643/ASTM A564 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENSILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI receive ft				24	11/23/2017	12	S018291	Stock	12/6/2017	\$ 8.28 / ft	0		\$102.62	Acier Ouellette Inc.	
			10		M6061-T6S-040	6061-T6 .040 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf				84		96	S018292	Stock	12/6/2017	\$ 4.48 / sf	0		\$429.67	Acier Ouellette Inc.	
										Total:	88		108								\$420.30

Plex 12/6/2017 4:46 PM Dart.Plouffe.Sonia

Status: Receiving

M6061-T6S.040

Part:

Created: 12/6/17 4:43 PM DART.PLOUTFFE.SC



Serial No: **S018292**

Status: Receiving

M17-4-R0.750

Part:

Created: 12/6/17 4:43 PM DART.PLOUTFFE.SC



Serial No: **S018291**



ACIER OUELLETTE INC.

DELIVERY - CLIENT

0000064361

CL10001056

2017/11/28

2017/12/05

38398 Louisiana Board

Shipped to

DART AEROSPACE LTD

11270, ABERDEEN ST.
HAWKESBURY, Ontario. K6A 1K7

All : CHANIAL LAVOIE Tel.: 613-632-5200

1

Net 30 Days

Net 30 Days

Delivery Route		5	Page	1	Internal Use Only					
Weight	Qty	U/M	CMD	EXP	B/O	IN	I	S	C	OUT
54.05	96.00	PJ2_\$CLB		2x 4x12						

Total Weight (Lbs) : 54.05
Conditions :
NID : D 1000E1C C

MS. K.1.693.16-6

cycle in full compliance and unobstructed.

ACIER OUËLLETTE IR

to respect the 25% restocking charge.

Total (\$CAD)			
171.25			
Date			
Prepared By : <u>Amy</u> / 09	Verified By : <u>Amy</u> / 09	Delivered By : <u>A</u>	Time



DELIVERY - CLIENT

CO00062806

ACIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,
Ontario, K6A 1K7

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Instruction	F-M	Delivery Route	5	Weight	Qty	U/M	Page
				18.02	12.00	PI-\$CLB	1

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only		
				CMD	EXP	B/G	IN	I	S
1 ROUND SS 3/4 17-4PH NS RSS-34174 9268									
1 X 12' R/L HEAT AC11395-JG-27/11									

Conditions :

All sold and delivered materials remain the property of "Acer Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acer Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acer Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

NIR : R-109516-6

Total Weight (Lbs) : 18.02

Prepared By :	Verified By :	Delivered By :	Time :	Total (\$CAD) :
---------------	---------------	----------------	--------	-----------------

Customer's Signature :	Date :
------------------------	--------

Total (\$CAD)



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038398

Supplier:	ACI001-VC Acier Ouellette Inc. 935 Boul. Du Havre Valleyfield QC J6S 5L1 Canada Phone: 800 667 4248 Fax: 450 377 5696	PO No:	PO038398
		PO Date:	11/17/17
		Due Date:	11/23/17
		Purchase Order Revision:	
		Revision Date:	
		Ship-To Contact:	Baker, Diane Phone: dbaker@dartaero.com

Ship To:	1270 Aberdeen Street Hawkesbury ON K6A 1K7 Canada Phone: 613-632-5200	Via:	Ground
		Pymt Terms:	Net 30
		Freight Terms:	
		Special Comments:	QUOTATION NO: SOU0071247 AND SOU0071659

Items											
Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M304S20GA		304/316 .040 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf		Firmed	11/23/17	✓ 128 sf	0 sf	128 sf	\$3.9085/sf	\$500.29
2	M304S16GA		304/316 Sheet .063 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf		Firmed	11/23/17	✓ 96 sf	0 sf	96 sf	\$6.508625/sf	\$624.83
3	M17-4-R0.750		17-4 Round Bar .750 : 17-4 PH / S17400 / TYPE 630 SS ROUND BAR PER AMS 5643/ ASTM A564 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENSILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI receive ft		Firmed	11/23/17	24 ft	0 ft	24 ft	\$8.2754166/ft	\$198.61
4	M2024T3S.032		2024-T3 .032 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 receive sf		Firmed	11/23/17	48 sf	0 sf	48 sf	\$9.26666/sf	\$444.80
5	M304R.250		304 SS Round bar .250 : MATERIAL: AISI 304/316		Firmed	11/23/17	✓ 12 ft	0 ft	12 ft	\$0.500833/ft	\$6.01



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038398

Items											
Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
6	M304R0.375	✓	SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft 304 Round Bar 0.375 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft		Firmed	11/23/17	60 ft	0 ft	60 ft	\$1.188/ft	\$71.28
7	M4130NR0.375	✓	4130 Steel Round Bar .375" : MATERIAL: AISI 4130N ROUND BAR AS PER MIL-S-6758 OR AMS 6348/6370/6528 receive ft		Firmed	11/29/17	12 ft	0 ft	12 ft	\$21.50/ft	\$258.00
8	M60610S.032	✓	6061 0 Sheet .032 : MATERIAL: 6061-OS ALUMINUM SHEET AMS- QQ-A-250/11 OR AMS 4025 receive sf		Firmed	11/23/17	48 sf	0 sf	48 sf	\$8.4375/sf	\$405.00
9	M6061T6S 020	✓	6061-T6 Sheet .020 : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf		Firmed	11/23/17	48 sf	0 sf	48 sf	\$1.736875/sf	\$83.37
10	M6061T6S 040	✓	6061-T6 .040 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf		Firmed	11/23/17	64 sf	0 sf	64 sf	\$4.4757812/sf	\$286.45
11	M6061T6S 063	✓	6061-T6 .063 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf		Firmed	11/23/17	64 sf	0 sf	64 sf	\$2.7565625/sf	\$176.42
12	M6061T6S.080	✓	6061-T6 .080 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf		Firmed	11/23/17	96 sf	0 sf	96 sf	\$5.203958/sf	\$499.58
13	M6061T6B0.125X2.500	✓	6061T6 Bar .125 X 2.50 : MATERIAL: 6061-		Firmed	11/23/17	20 ft	0 ft	20 ft	\$0.9775/ft	\$19.55



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038398

Line Item	Part	Rev	Description	Items								
				Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price	
14	M6061T6B2.000X03.500	-	T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft		Firmed	11/23/17	12 ft	0 ft	12 ft	\$27.1825/ft	\$326.19 <i>12 ft</i> <i>SQA 11-23</i>	
15	M6061T6B1.500X3.000	-	6061-T6 Bar 2.00 X 3.50 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft		Firmed	11/23/17	12 ft	0 ft	12 ft	\$14.074166/ft	\$168.89 <i>12 ft</i> <i>SQA 11-23</i>	
16	M1018B0.500X05.000	-	1010-1025 Steel Bar .500 X 5.000 : MATERIAL: AISI 1010- 1025 OR ASTM A36/A366/A569/A570 OR OR CSA G40-21 38W/44W/50W/60W/70W CSA G40-21 OR 38W/44W/50W/60W/70W receive ft		Firmed	11/21/17	6 ft	0 ft	6 ft	\$12.371666/ft	\$74.23 <i>6 ft</i> <i>SQA 11-23</i>	

Grand Total: \$4,143.50

Order Notes

DWG REV D

- Procurement Quality Clauses
- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038398

Order Notes

A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

A handwritten signature in black ink, appearing to read "CL" followed by a surname.

Plex 11/17/17 12:02 PM dart.lavoie.chantal



ACIER OUELLETTE INC.

935, Boul. du Hâvre
 Salaberry de Valleyfield (Québec) J6S 5L1
 Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0071247

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
 HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Customer N°	CLI0001056		
Date	2017/11/15		
Revision N°	0		
Prices valid until	2017/11/22		
Your Order N°			
Processed by	BERNARD		
Salesman	JOSIANNE		
Carrier	OUELLE SDV		
Credit Terms	Net 30 Days		
Page	1		

Product N° and description	Weight	Qty U/M	Qty U/M	Price	Pcs Nb	Price	Amount
SHEET SS 20G SS304-2B (4'X8') FESS-20G483042B 3430 4 X 4'X8' STOCK	200.96	128.00 PI2_\$CLB	4.00 UN		4.00	125.072	500.29
SHEET SS 16G SS304-2B (4'X8') FESS-16G483042B 3419 3 X 4'X8' STOCK	252.00	96.00 PI2_\$CLB	3.00 UN		3.00	208.276	624.83
ROUND SS 3/4" 17-4PHNS RSS-34174 9268 2 X 12' R/L 2-3 DAYS	36.05	24.00 PI_\$CLB	24.00 PI		2.00	99.305	198.61
ALU SHEET .032 (20G) 2024-T3 RANDOM FEAL-0322024-V 3087 1 X 4'X12' 3-4 DAYS	14.43	32.00 PI2	32.00 PI2		1.00	444.800	444.80
FLAT SS 1/2 X 4 SS304 RANDOM FSS-120-V 3501 1 X 6' STOCK COUPE A LA SCIE SCIE 1	40.80	6.00 PI_\$CLB	6.00 PI		1.00	130.750	130.75
ROUND SS 1/4 304 RANDOM RSS-14-V 5742 1 X 12' R/L STOCK	2.00	12.00 PI_\$CLB	12.00 PI		1.00	6.010	6.01
ROUND SS 3/8" 304 RANDOM RSS-38-V 5768 5 X 12' R/L STOCK	22.56	60.00 PI_\$CLB	60.00 PI		5.00	14.256	71.28
4130N 3/8" DIA N 1 X 12' E4340 CF N & TAQ BAR DELIVERY 3-5 DAYS	0.00	1.00 UN	1.00 UN		1.00	258.000	258.00
FEUILLE 6061 0 .032 N 1 X 4'X12' DELIVERY 3-5 DAYS	0.00	1.00 UN	1.00 UN		1.00	405.000	405.00

4130N 3/8" DIA

préavis en fonction de l'évolution des prix de l'acier sur le marché.
 Cette offre est sujette et conditionnelle à l'approbation du crédit.

Date :

Next Page...



ACIER OUELLETTE INC.

935, Boul. du Hävre
 Salaberry de Valleyfield (Québec) J6S 5L1
 Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0071247

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Customer N°	CLI0001056
Date	2017/11/15
Revision N°	0
Prices valid until	2017/11/22
Your Order N°	
Processed by	BERNARD
Salesman	JOSIANNE
Carrier	OUELLE SDV
Credit Terms	Net 30 Days
Page	2

Product N° and description	Weight	Qty U/M	Qty U/M	Price	Pcs Nb	Price	Amount
ALU SHEET .020 (24G) 6061-T6 (4 X 12) FEAL-0204126061 3048 1 X 4' X 12' 2-3 DAYS	13.54	48.00 PI2_\$CLB	1.00 UN	1.00	83.370		83.37
ALU SHEET .040 (18G) 6061-T6 (4 X 8) FEAL-040486061 3125 2 X 4' X 8' 2-3 DAYS	36.03	64.00 PI2_\$CLB	2.00 UN	2.00	143.225		286.45
ALU SHEET .064 (14G) 6061-T6 (4 X 8) FEAL-064486061 3175 2 X 4' X 8' 2-3 DAYS	57.66	64.00 PI2_\$CLB	2.00 UN	2.00	88.210		176.42
ALU SHEET .081 (12G) 6061-T6 (4 X 12) FEAL-0814126061 3195 2 X 4' X 12' 2-3 DAYS	109.54	96.00 PI2_\$CLB	2.00 UN	2.00	249.715		499.43
FLAT ALU 1/8" X 2 1/2 6061-T6 RANDOM FAL-18212-V 2547 1 X 20' STOCK	7.35	20.00 PI_\$CLB	20.00 PI	1.00	19.550		19.55
FLAT ALU 2 X 3 1/2 6061-T6 RANDOM NS FAL-2312-V 8260 1 X 12' 2-3 DAYS	101.00	12.00 PI_\$CLB	12.00 PI	1.00	326.190		326.19
FLAT ALU 1 1/2 X 3 6061-T6 RANDOM FAL-1123-V 2445 1 X 12' 2-3 DAYS	63.50	12.00 PI_\$CLB	12.00 PI	1.00	168.890		168.89
SURCHARGE ENERGETIQUE FRAIS ENERGETIQUE		\$					3.95

Total Weight (Lbs) 957.42

Important

This offer is based on availability and current pricing conditions that may be revised upon
 préemption fonctionnelle l'évolution des prix de l'acier sur le marché.
 Cette offre est sujette aux conditions de la disponibilité et du crédit.

Approuved and Accepted by: _____

Date : _____

Sub-total 4 203.82

TVH-13 · 546.50

Total (\$CAD) 4 750.32



ACIER OUELLETTE INC.

935, Boul. du Havre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Quotation

SOU0071659

Billed to

DART AEROSPACE LTD

1270, ABERDEEN ST.
HAWKESBURY, Ontario, K6A 1K7

Shipped to

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Total Weight (Lbs)

\$1.00

Important

This offer is based on availability and current pricing conditions that may be revised upon
préavis de l'évolution des prix de l'acier sur le marché.
Cette offre est basée sur les conditions actuelles et peut être modifiée en fonction du crédit.

Approved and Accepted by :

Date : _____

Sub-total

78.18

TVH-13 • 10.16

88-34

CERTIFICATE OF TEST

CERTIFICAT D'ESAI

DART
62804

Page 01 of 02

Certification Date
27-NOV-2017

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT

AC00011395
PART NUMBER/NUMÉRO DE PIÈCE

510517

SOLD TO:	ACIER OUELLETTE INC.	SHIP TO:	ACIER OUELLETTE INC.
VENDU À:	DIVISION SALABERRY DE VALEYFIELD 935, BOUL. DU HAVRE SALABERRY-DE- VALLEYFIELD QC J6S 5L1		DIVISION SALABERRY DE VALLEYFIELD 935, BOUL. DU HAVRE SALABERRY-DE- VALLEYFIELD QC J6S 5L1

Description:	17-4 SOL ANN CF BAR	ASTM A564
3/4 RD X 12 R/L		Line Total: 185 LB
HEAT: 9SG0264-G5011	ITEM: 510517	

Specifications:

AMS 5643 U	ASTM A564 T630 13	ASME SA564 T630 13
ASTM A388/A388M 16	AMS 2303 F	NACE MR0175 09
ISO 15156-1 09*	*EXCEPT FOR H2S	CORROSION TEST)
EN 10204 3.1	ASTM F899 12B	API 6A APPENDIX M
ASTM E340	AMS 2315	ASTM E112

CHEMICAL ANALYSIS

C	SI	MN	P	S	NI	CR	MO
0.01	0.34	0.62	0.017	0.003	4.69	15.35	0.23
CU	NBTA	NB	TA				
3.30	0.27	0.26	0.005				

RCPT: R201370

COUNTRY OF ORIGIN : TAIWAN

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED IN AREA	HARDNESS BHN
COND A					321
DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
DEV: H900 L	182.0	201.0	17.0	53.0	428

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.
The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontra les spécifications décrites ci-haut.

JOANNE DESPREZ

MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

CERTIFICATE OF TEST

CERTIFICAT D'ESAI

Page 02 of 02

Certification Date
27-NOV-2017

CUSTOMER ORDER NUMBER
NUMÉRO DE COMMANDE DU CLIENT
AC00011395

Invoice Number
T373050

PART NUMBER/NUMÉRO DE PIÈCE
510517

SOLD TO:	ACIER OUELLETTE INC.	ACIER OUELLETTE INC.
VENDU À:	DIVISION SALABERRY DE VALLEYFIELD 935, BOUL. DU HAVRE SALABERRY-DE- VALLEYFIELD QC J6S 5L1	DIVISION SALABERRY DE VALLEYFIELD 935, BOUL. DU HAVRE SALABERRY-DE- VALLEYFIELD QC J6

Description:	17-4 SOL ANN CF BAR 3/4 RD X 12' R/L	ASTM A564
HEAT:	9SG0264-G5011	Line Total: 185 LB

GRAIN SIZE : 8 -

MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL
ULTRASONIC: YES
THERMAL TREATMENT: OK
SOLUTION TREATMENT: 1900 +/- 25 DEG F FOR 30 MIN/INCH
(MINIMUM OF 1/2 HOUR), RAPIDLY COOLED TO BELOW 90
DEG F
MACRO: OK
MICRO1: OK
AMS NO :2303
SEVERITY :0.0
FREQUENCY:0.0

COMMENTS

red. ratio 279.6:1
17-4 is the same with aisi 630
free from residual radioactivity

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.
The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with anyone who is in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.



JOANNE DESPRES
MANAGER QUALITY ASSURANCE
GÉRANT DE L'ASSURANCE QUALITÉ

KAISER
ALUMINUM
FABRICATED PRODUCTS

Kaiser Aluminum
Trentwood Works
Spokane, WA 99215-5108
(800) 367-2586

CERTIFIED TEST REPORT
<http://Online.KaiserAluminum.com>

CUSTOMER PO NUMBER:		WORK PACKAGE	CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION		
5400351578-10			ALFLR01622		HT Flat Sheet		
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	ALLOY:	CLAD:	TEMPER:		
1238880	1	09/07/2017	6061	BARE	O		
WEIGHT SHIPPED:	QUANTITY:	BL NUMBER:	GAWB	WIDTH:	LENGTH:		
10614 LB	388 PCS EST.	2068857	0.0400 IN	48.000 IN	144.000 IN		

MHU 2148759: LOT 237500B4: 158 pieces
 MHU 2148784: LOT 237500B4: 72 pieces
 MHU 2148791: LOT 237500B4: 158 pieces

Certified Specifications

AMS 4025/RevM ASTM B 209/Rev14 CMMP 019/RevD CMMP 025/RevV

Test Code: 4010

Test Results:

LOT: 237500B4 CAST: 145 DROP: 64 INGOT: 4

Melted in USA
(ASTM E6/B557)
(EN 2002-1)

Tensile: Temper	Dir/#Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
O	LT / 02 (Min:Max)	19.4 : 19.6 (134 : 135)	7.6 : 7.8 (52 : 54)	24.4 : 25.4
T42	LT / 02 (Min:Max)	34.4 : 35.2 (237 : 243)	15.3 : 16.1 (105 : 111)	22.0 : 23.6
T62	LT / 02 (Min:Max)	45.9 : 46.5 (316 : 321)	39.1 : 39.5 (270 : 272)	12.6 : 12.8

(ASTM E112)
(EN 2002-8)
Grain Size: 7.0

(ASTM E1251)

Chemistry:	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	V	Zr	Other
Actual	0.69	0.5	0.31	0.12	1.0	0.18	0.12	0.02	0.01	0.00	TOT 0.04

Plant Serial: 447699C
 Kaiser Order Number: 1238880
 Line Item: 1

KAISER

ALUMINUM

FABRICATED PRODUCTS

Kaiser Aluminum
Trentwood Works
Spokane, WA 99215-5108
(800) 367-2586

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
6061	MIN	0.40	0.0	0.15	0.00	0.8	0.04	0.00	0.00	0.00	MAX 0.05
	MAX	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	TOT 0.15

Aluminum Remainder

Miscellaneous Notes

THIS MATERIAL IS CERTIFIED TO MEET STRETCH FORM QUALITY REQUIREMENTS.

Grain Size Test (ASTM E112, EN 2002-8)) (Etchant Used: Barker's; Magnification: 100X;
Sample Location: Head of the lot)

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order: * has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein. All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture. * was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content. * has been thermally processed in compliance with AMS 2772, where applicable. * is mercury free, within the limits of detection of ASTM E1215 (<1ppm). * is in compliance with RoHS 2, European Union Directive 2011/65/EU. * is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates. * is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act. * is free of weld repair. * meets the reporting requirements of EN10204, Type 3.1. Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, LABORATORIES SUPERVISOR



Plant Serial: 4476990
Kaiser Order Number: 1239380
Line Item: 1

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061+65.040
 DATE: DEC 09 2017

PO / BATCH NO.: 038398/5018292

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 96 Pcs
 QUANTITY INSPECTED: 96 Pcs
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .040
 THICKNESS RECEIVED: .040
 SHEET SIZE ORDERED: 4x12
 SHEET SIZE RECEIVED: 4x12

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<i>Ams 4025</i>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<i>Heat # 23750084</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>✓</u>	SIGNED OFF BY: _____
DATE: <u>DEC 09 2017</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T62 ALUMINUM SHEET

SPECIFICATION:

QQA-250/11 OR AMS-QQ-A-250/11
OR AMS 4027 OR AMS 4027

OR ASTM B209

PART NUMBER:

M6061T6S | XXX | THK |

WHERE "XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M6061T6S.063

PREFERRED SIZE:

.XXX BY 4FT BY 8FT



PURCHASE MATERIAL: 6061-T6/T62 ALUMINUM SHEET

SPECIFICATION:

QQA-250/11 OR AMS-QQ-A-250/11
OR AMS 4027 OR AMS 4027

OR ASTM B209

PART NUMBER:

M6061T6S | XXX | THK |

WHERE "XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M6061T6S.063

PREFERRED SIZE:

.XXX BY 4FT BY 8FT

RELEASED
R 2009-09-10

[Signature]

B	REFORMATTED DWG. ADD B209 SPEC (ZN DB-1). REF PAR 06-020A	C/P	09/07/13
A	NEW ISSUE	DS	01/06/08
REV.	DESCRIPTION	BY	DATE
	DART AEROSPACE LTD		
	DRAWN		
	CHECKED		
	MF. APPR.		
	APPROVED		
	DE APPR.		
	DATE	09/07/13	

REVIEWED BY DART AEROSPACE LTD

NOT FOR SALE OR ANY PURPOSE, OR USED TO COMMUNICATE TO ANY OTHER PERSON, WITHOUT

WRITTEN APPROVAL FROM DART AEROSPACE LTD

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M17-4-R0.750
 DATE: DEC 07 2017

PO / BATCH NO.: 038398/5018291

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12"
 QUANTITY INSPECTED: 12"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750
 THICKNESS RECEIVED: 0.750
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>AMS 5643</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>Heat# ACH395-J6-2744-95G0264-G5011</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DURA	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>jl</u>	SIGNED OFF BY: _____
DATE: <u>DEC 07 2017</u>	DATE: <u>12/14/17</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

D	C	B	A																																								
<p>D PURCHASE MATERIAL: 17-4 PH / S17400 / TYPE 630 SS ROUND BAR GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD STRENGTH PER TABLE MINIMUM ULTIMATE STRENGTH PER TABLE</p> <p>C SPECIFICATION: PART NUMBER: AMS 5633 OR ASTM A564</p> <p>B M17-4- HHHHH- R XXXX WHERE: HHHHH SPECIFIES THE MATERIAL CONDITION (PER TABLE BELOW) COND O.D. X.XXX = DIAMETER (IN INCHES)</p> <p>A EXAMPLES:</p> <p>PART 4.000" DIAMETER BAR MIN UTS = 150 KSI, MIN YTS = 100 KSI M17-4-R4-000 M17-4-H900-R2-500 3.250" DIAMETER BAR H900 CONDITION M17-4-H1025-R3-250 3.250" DIAMETER BAR H1025 CONDITION M17-4-CONDA-R0-750 0.750" DIAMETER BAR A CONDITION M17-4-CONDA-R0-750</p>																																											
<p>C MATERIAL CONDITION TABLE:</p> <table border="1"> <thead> <tr> <th>CODE</th> <th>CONDITION</th> <th>MIN YIELD STRENGTH (KSI)</th> <th>MIN ULTIMATE TENSILE STRENGTH (KSI)</th> </tr> </thead> <tbody> <tr> <td>(OMITTED)</td> <td>NONE SPECIFIED (CONDITION A NOT ACCEPTABLE)</td> <td>100</td> <td>150</td> </tr> <tr> <td>H900</td> <td>H900</td> <td>170</td> <td>190</td> </tr> <tr> <td>H925</td> <td>H925</td> <td>155</td> <td>170</td> </tr> <tr> <td>H1025</td> <td>H1025</td> <td>145</td> <td>155</td> </tr> <tr> <td>H1075</td> <td>H1075</td> <td>125</td> <td>145</td> </tr> <tr> <td>H1100</td> <td>H1100</td> <td>115</td> <td>140</td> </tr> <tr> <td>H1150</td> <td>H1150</td> <td>105</td> <td>135</td> </tr> <tr> <td>COND A</td> <td>CONDITION A (SOLUTION TREATED)</td> <td></td> <td></td> </tr> </tbody> </table> <p>D NOTES: MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR TENSION OR SHEAR APPLICATIONS IN COLD WEATHER CONDITIONS MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR APPLICATIONS WHERE STRESS CORROSION CRACKING IS POSSIBLE CONDITION A NOT TO BE USED IN DESIGN FOR FINAL PRODUCT AND SHOULD ALWAYS BE HEAT TREATED</p>				CODE	CONDITION	MIN YIELD STRENGTH (KSI)	MIN ULTIMATE TENSILE STRENGTH (KSI)	(OMITTED)	NONE SPECIFIED (CONDITION A NOT ACCEPTABLE)	100	150	H900	H900	170	190	H925	H925	155	170	H1025	H1025	145	155	H1075	H1075	125	145	H1100	H1100	115	140	H1150	H1150	105	135	COND A	CONDITION A (SOLUTION TREATED)						
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